

ABSTRACT

A method for producing water containing ozone by electrolysis, using an apparatus comprising,

an anodic electrode (3) disposed on one side of a solid polymer electrolyte membrane (5) and having a catalyst function for generating ozone,

a cathode electrode (4) disposed on other side of the solid polymer electrolyte membrane (5),

a mechanism for advancing and reversing both or at least one of the electrodes (3,4) as against the solid polymer electrolyte membrane (5), wherein

DC voltage is applied between the both electrodes (3,4) in the state of the solid polymer electrolyte membrane (5) pressed by the both electrodes (3,4),

water flows on both sides of the solid polymer electrolyte membrane (5),

water containing ozone is produced at the anodic electrode (3) side by electrolysis of water current, further,

an operation for changing the pressing force is carried out, in which the pressing force of the anodic electrode (3), the cathode electrode (4) or both electrodes (3,4) as against the solid polymer electrolyte membrane (5) changes in accordance with preset condition, after that, the pressing force

returns to an original pressing force, thereby,

a recovery of the solid polymer electrolyte membrane is carried out while continuing the production of the water containing ozone.

And an apparatus thereof and a recovery method of the solid polymer electrolyte membrane.

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